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INFORMATION DISCLOSURE  
STATEMENT

Examining Group 1653  
Patent Application  
Docket No. UF-326XC1  
Serial No. 10/602,395



Doran R. Pace, Patent Attorney

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Examiner : Not yet assigned  
Art Unit : 1653  
Applicants : Charles L. Guy, Fatma Kaplan, Dong Yul Sung  
Serial No. : 10/602,395  
Filed : June 23, 2003  
Conf. No. : 1698  
For : Materials and Methods for Providing Plants with Increased Resistance to Environmental Stress

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313

INFORMATION DISCLOSURE STATEMENT  
UNDER 37 CFR §§1.97 AND 1.98

Sir:

In accordance with 37 CFR §1.56, the references listed on the attached form PTO/SB/08 are being brought to the attention of the Examiner for consideration in connection with the examination of the above-identified patent application. A copy of each cited reference is enclosed.

It is respectfully requested that the references cited on the attached form PTO/SB/08 be considered in the examination of the subject application and that their consideration be made of record.

Applicants respectfully assert that the substantive provisions of 37 CFR §§1.97 and 1.98 are met by the foregoing statement.

Respectfully submitted,



Doran R. Pace

Patent Attorney

Registration No. 38,261

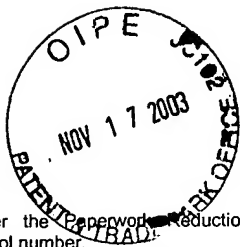
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DRP/tl

Attachments: Form PTO/SB/08; copies of references cited therein.



PTO/SB/08A (10-01)  
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<b>Substitute for form 1449A/PTO</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)				<b>Complete if Known</b>	
				Application Number	10/602,395
				Filing Date	June 23, 2003
				First Named Inventor	Charles L. Guy
				Art Unit	1653
				Examiner Name	Not yet assigned
Sheet	1	of	3	Attorney Docket Number	UF-326XC1

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code <sup>2</sup> (if known)			
	U1	US- 5,762,057	07-09-1998	The United States of America	All
	U2	US- 5,106,739	04-21-1992	Calgene, Inc.	All
	U3	US- 5,688,684	11-18-1997	Sapporo Breweries Ltd.	All
	U4	US- 5,863,784	01-26-1999	Sapporo Breweries Ltd.	All
	U5	US- 5,082,781	01-21-1992	Shigezo Udaka	All
	U6	US- 5,625,136	04-29-1997	Ciba-Geigy Corporation	All
	U7	US- 5,034,322	07-23-1991	Monsanto Company	All
	U8	US- 5,447,858	09-05-1995	Mycogen Plant Sciences, Inc.	All
	U9	US- 6,489,540	12-03-2002	Advanced Technologies (Cambridge) Limited	All
	U10	US- 5,460,952	10-24-1995	National Science Council of R.O.C.	All
	U11	US- 5,498,832	03-12-1996	A/S De Danske Spritfabrikker	All
	U12	US- 5,712,112	01-27-1998	National Science Council of R.O.C.	All
	U13	US- 5,912,413	06-15-1999	Iowa State University Research Foundation, Inc.	All
	U14	US- 6,469,230	10-22-2002	Plant Bioscience Limited	All
	U15	US- 6,268,548	07-31-2001	Board of Regents of University of Nebraska	All
	U16	US- 5,296,462	03-22-1994	Board of Trustees Operating Michigan State University	All
	U17	US- 5,356,816	10-18-1994	Board of Trustees Operating Michigan State University	All
	U18	US-			

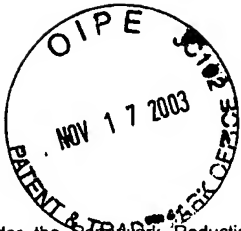
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Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> - Number <sup>4</sup> - Kind Code <sup>5</sup> (if known)				
	F1					
	F2					
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	F5					
	F6					
	F7					
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			Application Number	10/602,395	
			Filing Date	June 23, 2003	
			First Named Inventor	Charles L. Guy	
			Group Art Unit	1653	
			Examiner Name	Not yet assigned	
Sheet	2	of	3	Attorney Docket Number	UF-326XC1

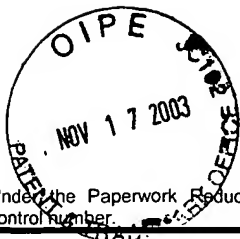
NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article, (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
/	R1	AVIGAD, G., DEY, P.M. "Carbohydrate Metabolism: Storage Carbohydrates" <u>Plant Biochemistry</u> 1997, P.M Dey and J. B. Harborne, eds. (Academic Press).	
/	R2	BECK, E., ZIEGLER, P. "Biosynthesis and Degradation of Starch in Higher Plants" <i>Annu. Rev. Physiol. Plant Mol. Biol.</i> 1989, Vol. 40, pp. 95-117.	
/	R3	DATTA, R. <i>et al.</i> "Stress-Mediated Enhancement of $\beta$ -Amylase Activity in Pearl Millet and Maize Leaves is Dependent on Light" <i>J. Plant Physiol.</i> 1999, Vol. 154, pp. 657-664.	
/	R4	DREIER, W. <i>et al.</i> "Light- and Stress-Dependent Enhancement of Amyolytic Activities in White and Green Barley Leaves: $\beta$ -Amylases are Stress-Induced Proteins" <i>J. Plant Physiol.</i> 1995, Vol. 145, pp. 342-348.	
/	R5	FOWLER, S., THOMASHOW, M.F. "Arabidopsis Transcriptome Profiling Indicates that Multiple Regulatory Pathways are Activated during Cold Acclimation in Addition to the CBF Cold Response Pathway" <i>The Plant Cell</i> 2002, Vol. 14, pp. 1675-1690.	
/	R6	GILMOUR, S.J. <i>et al.</i> "Overexpression of the Arabidopsis CBF3 Transcriptional Activator Mimics Multiple Biochemical Changes Associated with Cold Acclimation" <i>Plant Physiol.</i> 2000, Vol. 124, pp. 1854-1865.	
/	R7	IWASAKI <i>et al.</i> "The Dehydration-Inducible Rd17 (Cor47) (Gene and its Promoter Region In <i>Arabidopsis thaliana</i> " (Accession No. AB004872) (Plant Register PGR97-156) <i>Plant Physiol.</i> 1997, Vol. 115, p. 1287.	
/	R8	KREPS, J.A. <i>et al.</i> "Transcriptome Changes for Arabidopsis in Response to Salt, Osmotic, and Cold Stress" <i>Plant Physiol.</i> 2002, Vol. 130, pp. 2129-2141.	
/	R9	LAO <i>et al.</i> "An <i>Arabidopsis</i> gene encoding a chloroplast-targeted $\beta$ -amylase" <i>The Plant Journal</i> 1999, Vol. 5, No. 5, pp. 519-527.	
/	R10	MIKAMI B. <i>et al.</i> "The Crystal Structure of the Sevenfold Mutant of Barley $\beta$ -Amylase with Increased Thermostability at 2.5 Å Resolution" <i>J. Mol. Biol.</i> 1999, Vol. 285, pp. 1235-1243.	
/	R11	MONROE, J.D., PREISS, J. "Purification of a $\beta$ -Amylase that Accumulates in <i>Arabidopsis thaliana</i> Mutants Defective in Starch Metabolism" <i>Plant Physiol.</i> 1990, Vol. 94, pp. 1033-1039.	
/	R12	NIELSEN, T.H. <i>et al.</i> "A $\beta$ -Amylase in Potato Tubers is Induced by Storage at Low Temperature" <i>Plant Physiol.</i> 1997, Vol. 113, pp. 503-510.	
✓	R13	SANTARIUS, K.A. "The Protective Effect of Sugars on Chloroplast Membranes during Temperature and Water Stress and its Relationship to Frost, Desiccation and Heat Resistance" <i>Planta</i> 1973, Vol. 113, pp. 105-114.	

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 3 of 3

**Complete if Known**

Application Number	10/602,395
Filing Date	June 23, 2003
First Named Inventor	Charles L. Guy
Group Art Unit	1653
Examiner Name	Not yet assigned
Attorney Docket Number	UF-326XC1

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article, (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
/	R14	SANTARIUS, K.A. "Freezing of Isolated Thylakoid Membranes in Complex Media" <i>Cryobiology</i> 1996, Vol. 33, pp. 118-126.	
/	R15	SCHEIDIG, A. <i>et al.</i> "Downregulation of a chloroplast-targeted $\beta$ -amylase leads to a starch-excess phenotype in leaves" <i>The Plant Journal</i> 2002, Vol. 30, No. 5, pp. 581-591.	
/	R16	SEKI, M. <i>et al.</i> "Monitoring the Expression Pattern of 1300 Arabidopsis Genes under Drought and Cold Stresses by Using a Full-Length cDNA Microarray" <i>The Plant Cell</i> 2001, Vol. 13, pp. 61-72.	
/	R17	SEKI, M. <i>et al.</i> "Monitoring the expression profiles of 7000 Arabidopsis genes under drought, cold and high-salinity stresses using a full-length cDNA microarray" <i>The Plant Journal</i> 2002, Vol. 31, No. 3, pp. 279-292.	
/	R18	SINGER, M.A., LINDQUIST, S. "Thermotolerance in <i>Saccharomyces cerevisiae</i> : the Yin and Yang of trehalose" <i>Trends Biotechnol.</i> 1998, Vol. 16, pp. 460-468.	
/	R19	TODAKA, D. <i>et al.</i> "Water stress enhances $\beta$ -amylase activity in cucumber cotyledons" <i>Journal of Experimental Botany</i> 2000, Vol. 51, No. 345, pp. 739-745.	
/	R20	WANG, Q. <i>et al.</i> "Identification and Characterization of a Phloem-Specific $\beta$ -Amylase <sup>1</sup> " <i>Plant Physiol.</i> 1995, Vol. 109, pp. 743-750.	
/	R21	YANCEY, P.H. "Living with Water Stress: Evolution of Osmolyte Systems" <i>Science</i> 1982, Vol. 217, p. 1214-1222.	
v	R22	YOSHIGI, N. <i>et al.</i> "Construction of a Plasmid Used for the Expression of a Sevenfold-Mutant Barley $\beta$ -Amylase with Increased Thermostability in <i>Escherichia coli</i> and Properties of the Sevenfold-Mutant $\beta$ -Amylase" <i>J. Biochem.</i> 1995, Vol. 118, pp. 562-567.	
	R23		
	R24		
	R25		
	R26		

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